ABSTRACT

A system and method for detecting defects in a porous material web or dense film applies differential pressure across the material web or film. The pores and defects in the material web or the defects in the dense film may be filled with a liquid. In embodiments of the invention, differential pressure may be applied using a vacuum roller or other vacuum pressure application device. When the differential pressure applied to the material web exceeds the bubble point pressure of a defect, the liquid within that defect may be removed. An image, such as a thermal or photographic image, of the material web is captured after the differential pressure has been applied across the material web or film. Removal of the liquid from a defect is indicated in the image, allowing defects to be detected.